

Golden Rules for Safe Food Preparation

1. Cook raw foods thoroughly. Under normal circumstances raw foodstuffs and water may become contaminated with pathogens, but in times of disaster the risk of contamination is even greater. Thorough cooking will kill the pathogens, which means the temperature of all parts of the food must reach at least 70 °C. Uncooked fruits or vegetables should not be eaten, unless they can be peeled. If milk has not been pasteurized, it should be boiled before use. Cooking will not necessarily destroy biotoxins.

2. Eat cooked food immediately. When cooked foods cool to room temperature, bacteria begin to grow. The longer the wait, the greater the risk. To be on the safe side, eat cooked foods immediately after heating,

3. Prepare food for only one meal. Foods should be prepared freshly and for one meal only, as far as possible. If foods have to be prepared in advance, or if there are leftovers, they should be stored cold, i.e. below 5 °C (in a refrigerator or in a cold box), or hot, i.e. above 60 °C. This rule is vitally important when it is planned to store food for more than 4–5 hours. Cooked foods that have been stored must be thoroughly reheated before eating, i.e. all parts reheated to at least 70 °C. Thorough reheating of foods is essential if refrigerators have ceased to operate for some hours due to power cuts.

4. Avoid contact between raw foods and cooked foods. Safely cooked food can become contaminated through even the slightest contact with raw food. This cross-contamination can be direct, e.g. when raw fish comes into contact with cooked foods. It can also be indirect. For example, preparing raw fish and then using the same unwashed cutting surface and knife to slice cooked food should be avoided, or all the potential risks of illness that were present before cooking may be reintroduced. Cross-contamination may also occur in a freezer when the power has been off for some time and this should be checked for. The juice of raw meat and poultry may drip onto other foods.

5. Choose foods processed for safety. Many foods, such as fruits and vegetables, are best in their natural state. However, in disasters and emergencies, they may not be safe and should be peeled before consumption if eaten raw. Foods that have been processed (e.g. canned food and packed dried food) and that have not been affected by the disaster may be safer. Dry rations may be easier to keep safe, as they do not need cold-storage, but they do need to be kept dry.

6. Wash hands repeatedly. Hands should be washed thoroughly before preparing, serving or eating food and after every interruption, especially after use of the toilet or latrine, changing a baby or touching animals. After preparing raw foods, especially those of animal origin, hands should be washed again before handling cooked or ready-to-eat foods.

7. Keep all food preparation premises meticulously clean. Since foods are so easily contaminated, any surface used for food preparation must be kept absolutely clean. Scraps of food and crumbs are potential reservoirs of germs and can attract insects and

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animals. The immediate surrounding of the temporary shelter, especially the kitchen and food storage areas, should be cleaned and sullage and solid kitchen waste should be disposed of properly. Food should be stored in closed containers to protect it from insects, rodents and other animals. Fly and rat traps should be used if necessary.

8. Use safe water. Safe water is just as important for food preparation as for drinking. If the supply of safe/potable water has been disrupted, the water intended for drinking or food preparation may be a source of food contamination.

9. Be cautious with foods purchased outside. Sometimes food served in restaurants and by street food-vendors is not prepared under hygienic conditions. In times of disasters or emergencies, the risk that such foods are contaminated is greater. Therefore, caution must be exercised in the choice of food: only food that has been thoroughly cooked and is still hot when served should be eaten. Food bought from street food-vendors should be thoroughly cooked in the presence of the customer. Apart from fruits and vegetables that can be peeled, raw or undercooked foods should be avoided. Only water that has been boiled, or disinfected with chlorine or iodine, should be drunk. Beverages such as hot tea or coffee, wine, beer, carbonated water or soft drinks, packaged fruit juices and bottled water are usually safe to drink, if not damaged by the disaster. Ice should be avoided, unless it is made from safe water

10. Breast-feed infants and young children. Breast milk is the ideal source of nourishment for infants during their first months of life. It protects infants against diarrhea through its anti-infective properties, and minimizes their exposure to foodborne pathogens. In times of epidemics and disaster situations, when foods may be contaminated or scarce, breast milk will ensure a safe and nutritionally adequate food for infants from birth up to the age of 4–6 months. Continued breast-feeding after this age can also contribute to the prevention of foodborne infections in older infants and young children. The advantage of providing dry rations is that recipients have more independence. Individual dry rations also avoid the risk of widespread intoxications or infections, which increases when mass cooking is done under unhygienic conditions. Nevertheless, with the appropriate safeguards listed above, centralized cooking may sometimes be necessary, especially if water and fuel supplies are scarce and sanitation is unsatisfactory.